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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/593,522	06/14/2000	Luc Rambaud	0054-0212P-SP	7611

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EXAMINER
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HO, DUC CHI

ART UNIT	PAPER NUMBER
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2665

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DATE MAILED: 02/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/593,522

Applicant(s)

RAMBAUD ET AL.

Examiner

Duc C Ho

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 June 2000.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-11, 13-15 and 17-19 is/are rejected.
- 7) ☒ Claim(s) 5, 12 and 16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 4/02-17-04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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## DETAILED ACTION

### *Specification*

1. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

#### Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or  
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.
- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

***Claim Rejections - 35 USC § 112***

2. Claims 3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3 recites the limitation "said packet" in line 2. There is insufficient antecedent basis for this limitation in the claim. The same remark applies for claim 7.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102(e) that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –  
(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

4. The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 1, 3, 4, 6, 8, 10, 11, 13, 5, 17, and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Westberg ( US 6,041,054).

Regarding claim 1, Westberg discloses an efficient transport of internet protocol packets using asynchronous transfer mode adaptation layer two.

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*forming a segmentation and reassembly layer intended to manage SAR packets*  
(The IP/PPP 102-fig 1 represents upper layer. The task of the AAL 101 is to reformat the data to be compatible with the ATM protocol. This task includes segmenting the IP/PPP data packet into AAL2 minicell), *each SAR packet* ( see the AAL2 minicell-fig.10) *being made of a header obtained in adding delineation information* ( AAL2 minicell header 1010-fig.10) *to the header of one of the variable sized packets of the upper layer* (the AAL2 minicell header 1010 is added to the header of an inherent variable sized IP/PPP packet-fig. 10 ) *and of a payload which contains the payload of the upper layer packet* ( in which the payload of the AAL2 minicell contains the payload of the IP/PPP data packet-fig. 10), *and*

*segmenting the flow of the thus obtained SAR packets into fixed sized packets for transmitting to the lower layer*( the AAL2 minicell then transmitted to the lower layer into fixed size ATM cell, see fig. 10, column 8, lines 19-42).

Regarding claim 3, the AAL2 minicell header-fig. 10 contains a length code field 305 of the IP/PPP packet.

Regarding claims 4, and 11, the AAL2 minicell includes the header " Full IP/PPP header" of the IP/PPP data packet, see figure 10.

Regarding claims 6, and 13, the header of the AAL2 minicell includes a CRC field 306-fig. 10.

Regarding claim 8, this claim has similar limitations as claim 1. Therefore, it is rejected under Westberg for the same reasons set forth in the rejection of claim 1.

Regarding claim 10, the AAL2 minicell header-fig. 10 contains a length code field 305 of the IP/PPP packet.

Regarding claim 15, Westberg discloses a method for recovering the variable sized packet of an upper layer from a receiving end, see column 6-line 23 to column 7-line 63.

Regarding claim 17, the CRC 306-fig. 10 is inherently used for checking no error has occurred in the header during transmission.

Regarding claim 19, the length code field 305 is inherently read in order to match with the CID field 304 identifying the IP/PPP data packet of the upper layer.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 2, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Westberg, in view of Galand et al. (US 6,317,433), hereinafter referred to as Galand.

Regarding claim 2, Westberg discloses all claimed limitations, except delineation information is made up of a flag with a specific pattern.

Regarding claim 2, Galand discloses a method and system for optimizing transmission link bandwidth occupation in high speed digital networks, in which a flag identifying the packet originating from the PTM traffic and a CNT indicating the length of the voice packet, see figure 3, column 5, lines 26-65.

It would have been obvious to one of ordinary skill in the art, at the time invention was made, to employ a flag with another field identifying the original packet and the length as taught by Galand into the system of Westberg so that by looking for the flag of the segmented packets, the Westberg system could identify the original packet at the upper layer and its length thereby providing an indication to orient the currently-considered IP/PPP packet within the ATM network nodes when transporting the packets over the ATM network.

9. Claims 14, 18, 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Westberg, in view of Johnston et al. (US 5,414,707), hereinafter referred to as Johnston.

Regarding claim 14, Westberg discloses all claimed limitations, except a CRC applied to the whole header.

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Johnston discloses a broadband ISDN processing method and system, in which an upper layer packet is formed in a SAR layer, wherein the SAR packet includes in a trailer a SAR PDU CRC field 10-figure 5a. This field is for checking the correct transmission of payload at the receiver, see figure 13, column 14-line 38 to column 15-line 26.

It would have been obvious to one of ordinary skill in the art, at the time invention was made, to employ an CRC field as taught by Johnston into the AAL2 minicell of Westberg, since the CRC is used for error detection, such that when the receiver of the packet performs a calculation with the bits in the payload of the packet and compares the result of the calculation to the CRC value. If the CRC value is not the same as the result of the calculation, it means that the packet was damaged in transit, and should be retransmitted.

Regarding claim 18, Westberg discloses all claimed limitations, except a step of checking that no error has occurred in the payload during transmission, and if it has, restarting the step of searching an information delineation.

Johnston discloses a broadband ISDN processing method and system, in which an upper layer packet is formed in a SAR layer, wherein the SAR packet includes in a trailer a SAR PDU CRC field 10-figure 5a. This field is for checking the correct transmission of payload at the receiver, see figure 13, column 14-line 38 to column 15-line 26.

It would have been obvious to one of ordinary skill in the art, at the time invention was made, to employ an CRC field as taught by Johnston into the AAL2 minicell of



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Westberg, since the CRC is used for error detection, such that when the receiver of the packet performs a calculation with the bits in the payload of the packet and compares the result of the calculation to the CRC value. If the CRC value is not the same as the result of the calculation, it means that the packet was damaged in transit, and should be retransmitted.

Regarding claim 7, please see the rejection of claim 18. Johnston discloses a CRC at the trailer of the SAR PDU payload, see fig. 5a.

#### ***Allowable Subject Matter***

10. Claims 5, 12, 16 are objected to as being independent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Peterson et al. (US 5,822,321); Logston et al. (US 5,467,342) are cited to show a method for transmitting variable sized packets from an upper layer of a stack of communication protocol layers to a lower layer intended to manage fixed sized packets, which is considered pertinent to the claimed invention.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc Ho whose telephone number is (703) 305-1332. The examiner can normally be reached on Monday through Friday from 7:00 am to 3:30 pm.

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If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu, can be reached on (703) 308-6602.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4750

13. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**or faxed to:**

(703)- 872-9306

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,

Arlington. VA, Sixth Floor (Receptionist).

Patent Examiner



Duc Ho

02/17/04